

PHILMONT *Mobile* RADIO CLUB INC.

*The*

# B L U R B

AREA.  
MEMBER



November



1966

## DINNER *Dance*

BY PHIL-MONT MOBILE RADIO CLUB

NOV. 12<sup>TH</sup> SATURDAY  
6:30 PM

WILLIAMSON'S RESTAURANT (*Barclay Bldg.*)  
CITY LINE & BELMONT AV. BALA. CYNWYD, PA.

### *Program*

- ROAST BEEF DINNER • DANCING
- ENTERTAINMENT
- DOOR PRIZES!

\$7:50 PER PERSON:

*FOR  
TICKETS*

SEE  
JACK MAHONEY  
W3DJW



The BLURB is published monthly by and for the members of the Phil-Mont Mobile Radio Club. Our purpose is to further the interest of amateur radio in general and mobile radio in particular. We endeavor to keep the news accurate, interesting, and educational. Copying and quoting is permitted, with a credit line, and we gladly exchange subscriptions with other clubs.

**DEADLINE:** All material must be in the hands of the Department Editor before the 15th, as the BLURB is mailed on the last Monday of each month.

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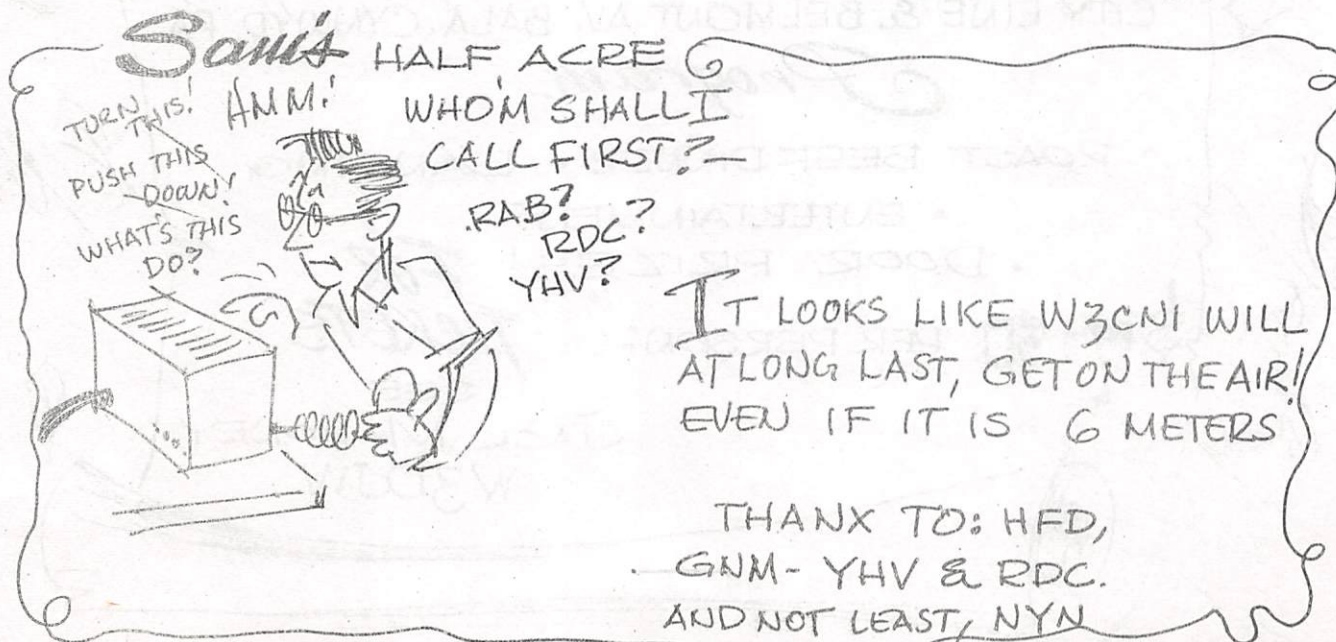
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W3TKQ - CLUB STATION

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Philadelphia, Pennsylvania 19103

CLUB NETS & FREQUENCIES

29.493mc - 10-on-10 Net Sundays  
1000, monitored daily. 29.626mc  
2nd Freq., 3993kc SSB 0730-0845,  
50.70 and 52.525mc (FM) 147.78mc



## THE PREZ SEZ

Last month I made a suggestion about a change in nominations and voting for President of Phil-Mont. Let's discuss it at our regular November meeting. I'll handle the discussion as I did at the "business" meeting in June - each one who wishes can talk for two minutes, with a chance for rebuttal if time permits. Since this is election time, the subject is appropo. We won't settle the matter at this meeting, but we will think about it.

The big Phil-Mont event of the year is just around the corner - the Phil-Mont banquet. A new place, a new method on prizes - and a new idea on the music. Get your tickets as soon as possible and give Jack, W3DJW, and Dick, W3WXC, as much advance information as possible. We are going to have a real good time. I've asked Mr. R. Neathery, the Director of The Franklin Institute Museum to be our principal speaker. He is well versed in many, many interesting subjects that even our XYL's will be glad to hear about. Our good friend and fellow member, Laurence, W3QCV, will also be on hand with some interesting comments. Let's make this banquet an outstanding one by turning out, one and all.

Fred, W3ADV

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## IT SEEMS TO ME

This month, November, marks the real beginning of a new year for Phil-Mont. It is at the time of nomination that next year's officers are really selected, with the final choice being made from the small group of nominees.

Just as this year's officers must look back at their accomplishments, we hope that the nominees will look ahead and ask themselves, "Is this action or idea really best for Phil-Mont, or am I a bit prejudiced because it makes me look good?"

Holding office in Phil-Mont is hard work, frequently without visible appreciation, but if this condition is not tolerable, then no member should accept a nomination. The job should be undertaken with no thought of personal gain or self-elevation, for only in this way can Phil-Mont continue to move ahead and set the standard for successful radio clubs.

de K3KUD

## CLUB NEWS AND ACTIVITIES

Monday, November 7 : Regular meeting at the Franklin Institute, this month featuring the announcement of candidates for office for 1967. A brief review of the pertinent by-laws and Rules of Elections appear elsewhere in this issue of the BLURB.

Saturday, November 12: Annual Dinner Dance of the Phil-Mont Mobile Radio Club at the Williamson's Restaurant atop the Barclay Building, City Line and Belmont Avenues, Bala-Cynwyd. The time is 6:30 PM, the cost \$7.50 per person and the menu roast beef. Entertainment, dancing and door prizes will round-out the evening. Tickets available from Jack Mahoney, W3DJW - BUT HURRY!

Wednesday, November 16: Mid-month meeting at the home of Joe Elmaleh, K3HIJ. Joe's address is 8251 Old York Road, Elkins Park. Directions will be available on Channel 1 and very probably on 52.525 mc also.

Safari to Tarreytown: On Saturday, October 15 our travelling representatives (W3QQH, NIP, AES, and K3AHP, SPS) journeyed to the Hudson Division Convention at Tarreytown, New York where they presented an illustrated program about the growth, activity, and present status of Phil-Mont. Some 70 persons attended the presentation and after the formal portion was completed, joined in a question and answer period. The program was well received and the Phil-Monters had a successful day.

Golf Match: On Sunday, October 16, mobile W3DSG, W3ADV, K3RTR and K3RSX with W3GIF as Control Station provided communication and general assistance for the golf matches at St. Davids. All reports indicate a good day and satisfactory job by all concerned.

Board of Elections: President Fred Shaw, W3ADV, has appointed the following Board of Elections in accordance with the Rules of Elections which are published elsewhere in this issue: John Tinaglia, W3AWH; Jim Spencer, W3QQH; Hal Rausch, K3AHP.

October Mid-month Meeting: Held at the home of Bob Lachman, W3OEC, the meeting discussed primarily the progress of the Banquet Committee with Chairman Jack Mahoney, W3DJW, discussing the plans and preparations to date. The group, which consisted of 15 members, also took up the question of SSB equipment for the trailer. Many ideas were advanced and discussed, but final action has not been taken. Plans for some improvements and changes at W3TKQ were discussed very generally, but this project is presently only in the discussion stage. Refreshments and pleasant company were provided by our host and a good time was had by all.

Change of address: We have received the following new address for Tom Donnelly, W3VCE/KL7FPT: Box 27, Tok, Alaska, 99780.

Andy Anderson, Ex-W3NL, now a resident of Holton, Kansas has been assigned the call KØNL. Andy thus becomes the only 2-letter KØ call ever assigned to a civilian.

## MISCELLANEOUS ITEMS OF INTEREST

From Gerry, W3JKH - The controlled magnetic microphones given out at the SJRA Banquet are Shure Brothers Model 99E86 and are for voice frequencies. The impedance is 4000 ohms at 1000 cps. The output is 58.5 DB below 1 volt per microbar.

\* \* \* \* \*

From bitter experience - In the event that you have any bad components to be returned to Heath, and you choose to do it via the Philadelphia store, be sure to have all the order numbers, slips, bills, etc. The people over on the Roosevelt Boulevard are really adamant about this! Incidentally - you will have components to return - you can almost bet on it!

\* \* \* \* \*

This issue of the BLURB will be printed at the new location, by the new printer, Bob Thomas, W3QZO. Bill Bubeck, W3YHV, who has been doing the job for quite a few years finally asked for relief and was lucky enough to find it. Very few people realize that Bill virtually learned a new trade just so he could handle the BLURB printing. He put a lot of his free time into learning the operation, manipulation and even repair, of the Multilith equipment. Many thanks Bill, for your interest and hard work. To "Sam-Bob" we certainly wish the best and at least as much success. (ED)

\* \* \* \* \*

A minor point regarding members of Phil-Mont who are also members of Navy MARS - Would you believe K3KUD (NØRUN); W3ZPP (NØARK); W3GIF (NØFMY); K3NUC (NØFIA)? All the above are in addition to those mentioned in the last issue of the BLURB. (There are at least two more whose MARS call I don't know, WA2RDC for example)

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SAMS announces three more books which may be of interest to amateurs. "Understanding Amplitude Modulation" by Irving Gottlieb. 160 pages, priced at \$3.25. Catalog #<sup>o</sup>AMG-1. (What is AM? (ED))

"Having Fun in Electronics" by Leo G. Sands. 160 pages, priced at \$3.25. Catalog # HFS-1.

"101 Ways to Use Your Sweep Generators" by Robert G. Middleton. Priced at \$2.95, 160 pages. Catalog # TEM-1A.

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As far as is known at this time, the Editor-in-Chief Lloyd Sherman, W3CDY, will resume his editorial duties next month. Send all material for the December BLURB to Lloyd, no later than the 15th of November. Any change in the above will be announced on the 10-on-10 Net.

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## RULES OF ELECTIONS

1. A nominating committee, consisting of at least three members shall be appointed by the President.
2. Nominating committee members are permitted to run for office, but only upon petition from the membership. The committee cannot nominate themselves. The petition must be signed by at least five members and be presented to the nominating committee chairman at the November meeting to be included on the slate of nominees.
3. All offices are to have two or more nominees.
4. Nominations are to be announced at the November regular meeting.
5. Nominations will be accepted from the floor at the November regular meeting after announcement of the slate of nominees presented by the nominating committee.
6. Only members who have previously indicated their willingness to run can be nominated for office.
7. No information on the nominees is to be given out prior to the November meeting. Only members who have accepted nomination will be announced. All others are to be kept confidential.
8. All nominations are closed at the conclusion of the November meeting.
9. Nominees for each office shall be listed alphabetically by call on the ballot and on the published list.
10. After nominations have been closed at the regular November meeting, the President shall appoint a Board of Elections consisting of a chairman and two members. It shall be the function of this Board to supervise the December election, carry out the by-laws and Rules of Elections, and to resolve any problems associated with the election which are not covered by the by-laws and Rules of Elections/
11. Electioneering shall be encouraged on the part of all candidates, with the official club publication carrying profiles of the candidates. In addition, (at) the regular December meeting, the candidates for President and Vice-President shall be given equal time for campaign speeches. The campaign speeches at the December meeting are to be from three to five minutes in length.
12. The nominees for each office shall be put together on the nominations slate. Each officer must be elected by a simple majority of those voting, eliminating the candidate with the lowest vote. Balloting must continue until a simple majority is reached for each office.

\* \* \* \* \*

## EXCERPTS FROM BY-LAWS (Article 12)

Section 1 - Elections shall be held annually and shall be in the manner determined by the Board of Directors.

Section 4 - The ballot for the elections in this Association shall be by a closed, written ballot.

Section 5 - Any member in good standing shall be eligible to hold office in this Association either as an officer or as a member of the Board of Directors.

- Continued on next page -

EXCERPTS FROM BY-LAWS (article 12)

- continued -

Section 6 - Voting. Each member in good standing shall have only one vote on all questions presented for action at any meeting.

Section 7 - Absentee voting. Voting by members shall be only in person. There shall be no absentee voting or voting by proxy.

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SWAP AND SHOP

For sale: DX-100 with 100B modification  
and cabinet. \$95.00

For sale: Heath HO-10 Monitor Scope. \$49.50

Contact Bill Bubeck, W3YHV

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For sale: Channel 1 intercom receiver (110 VAC)  
Covers entire 10 meter band; has  
provision for remote speakers and  
6 meter converter. Noise balanced  
squelch. Mounted on standard 19"  
panel. (W3QQH ARC-5 conversion) \$40.00

Contact Bob Schmilewske, K3KUD  
TU-4-0190

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CHANNEL CHATTER

Dick, W3WXC, has been substituting for lost and missing 10-on-10 Net Control Stations and doing a good job. Anything to keep our Senior NCS, "Sunny", W3DSG, happy - Brad, W3QV, verbally working over RTTY converters with W3BBB/m while Jim is enroute to work in Roxborough - 10 meters opening up a little with Canada, England and Central America being heard during the daytime hours. Maybe the activity on Channel 1 will pick up too - George, W3MHR, now mobile on 75 meters SSB. We understand that George has recently come to the conclusion that "private eyes" are a very astute group - The group at mid-month was bid good night by Doc, W3HQJ, via Channel 1. Even though it was accidental, it was appreciated - What ever became of those evening chats between W3GIF, K3HIE, and W3QV? - Our Editor-in-Chief, W3CDY, at mid-month looking happy and chipper after his recent marriage - Well, that does it for this time. CC is still hard to come by.

How does a transistor amplify? By putting together some of the generalizations described here in the past months a simple approach to transistor amplifier operation may be devised.

Start with the circuit shown in Fig.1. This is our old friend from last month, the emitter follower, so called because the emitter voltage follows the base voltage. Therefore, if a 0.1 volt sine wave is impressed on the base, we can expect the emitter to follow and develop a 0.1 sine wave across the 500 ohm emitter resistor. And, if you are interested, the emitter signal will be in phase with the input signal on the base. The signal current flowing in the 500 ohm resistor will be 0.2 milliampere (0.1 volt divided by 500 ohms).

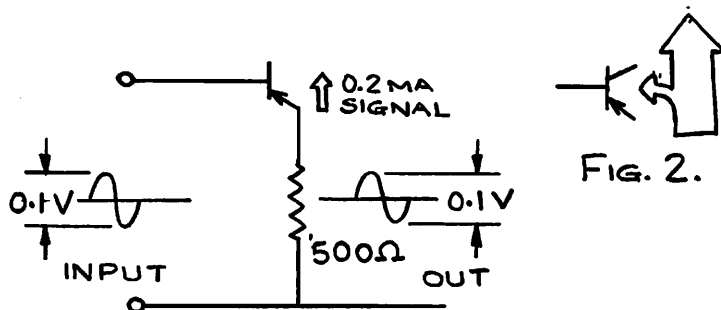


FIGURE 1.

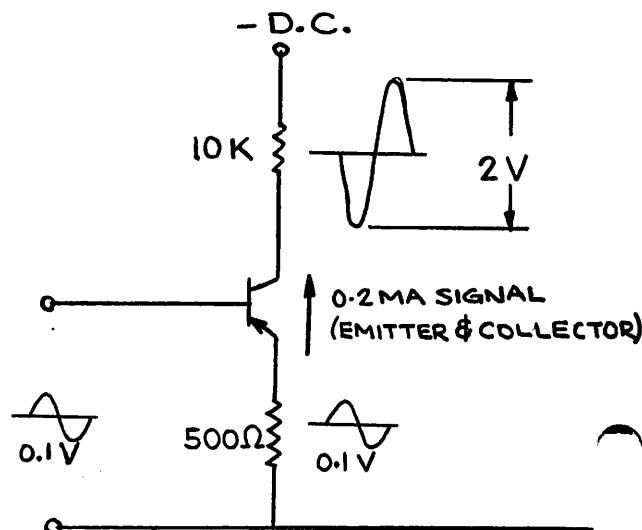


FIGURE 3.

Now think back to one of the earlier articles and recall how current flows in a transistor (Fig.2). It can be seen here that most of the emitter current flows directly to the collector; this goes for alternating signal current as well as direct current. Therefore, returning to our example, the 0.2 ma signal current flowing through the emitter resistor will find its way to the collector circuit almost undiminished. If we happen to have 10,000 ohms in the collector circuit (Fig. 3) this 0.2 ma current will develop 2 volts. TWO VOLTS! Ohmigosh, we only had a tenth of a volt at the input, and now we have two whole volts out the output. How did this happen?

It happened in two steps: First, the input signal voltage was reproduced across an emitter resistor, causing some signal current to flow through the resistance. Second, this current was made to flow in a much larger resistor so it developed a much larger voltage. In fact, the voltage gain is very close to the ratio of the two resistances

$$V.G. = \frac{R_{\text{COLLECTOR}}}{R_{\text{EMITTER}}} = \frac{10,000}{500} = 20$$



## TECKNIGRAM (continued)

Some wise guy will look at this equation and say, "Aha! If I completely bypass the emitter, the ratio of the resistances will be infinity, and I'll be the first Philmonteer on my block with a transistor amplifier having infinite gain". But not even Hugo Gernsback could pull that one off. Remember that the emitter current reaches the collector almost undiminished; Fig. 2 shows that not quite all of it gets there - some of it sneaks out through the base circuit. That's where  $\beta$ , or transistor current gain, enters the picture. The higher the  $\beta$ , the closer the gain will approach the ratio of emitter and collector resistors, but the gain can never be higher than the transistor  $\beta$ .

That leaves us with a couple of choices. If you want all the gain you can get, bypass the emitter resistor and use a high  $\beta$  transistor. One disadvantage in doing this is that you never know exactly how much gain you will get. Another problem may arise from low input impedance, but that's another story. If you want a reasonable amount of predictable gain, use an unbypassed emitter resistor, and make the collector/emitter resistance ratio no greater than about one-half of the transistor  $\beta$ . With a high gain device you can use a ratio of 40 or so, and thus know that your amplifier will have a voltage gain only slightly less than 40.

It is interesting to note that there is a phase reversal between input (base) and output (collector) waveforms in this type of circuit just as there is in a tube amplifier, and for the same reason.

So far only signal voltages and currents have been considered here. Next month we will cover d-c bias arrangements and complete the amplifier design.

\* \* \* \* \*

P.S. The author regrets that there was an omission in last month's Technigram near the top of Page 6. There should have been an equation,

$$I_B = I_C / \beta$$

Oh well, blame it on the Editor; he gets blamed for everything else.

\* \* \* \* \*

## TID-BIT

Currently the U.S. Navy has 713 maritime mobile amateur radio stations authorized aboard 469 ships of the fleet. Ships in the Atlantic and Mediterranean areas may contact amateur radio stations during unclassified movements in international waters when such activity is in consonance with existing operation orders. The same general conditions apply aboard ships in the Pacific area except that amateur radio activity on board such ships located north of the Equator and west of 160 degrees east longitude is prohibited. An exception to this latter policy is the hospital ship USS Repose (AH16) which, by virtue of the unclassified nature of its operation, is authorized to conduct maritime mobile operations throughout the Pacific when in international waters. KH6EJR and WA6YHD are currently aboard USS Repose.

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